CLAIMS

What is claimed is:

1. A water supply channel assembly, comprising:

a first water supply channel comprising:

a first flow path; and

a first group of apertures;

a second water supply channel comprising;

a second flow path; and

a second group of apertures; and

a first wall defining a commonly-shared sidewall of the first and second water supplies; wherein

the second flow path comprises a plurality of radially-extending flow channels.

2. The water supply channel assembly of claim 1, wherein the second water supply channel at least partially surrounds the first water supply channel.

3. The water supply channel assembly of claim 1, wherein:

the first flow path comprises a straight laminar flow path; and

the second flow path comprises an at least partially circular turbulent flow path.

4. The water supply channel assembly of claim 3, wherein each of the plurality of radially-extending flow channels extend substantially directly outwardly from the at least partially circular turbulent flow path.

5. The water supply channel assembly of claim 4, further comprising a second wall defining:

at least one sidewall of the plurality of radially-extending flow channels; and

at least one sidewall of the second flow path.

6. The water supply channel of claim 3, further comprising:

an inner nozzle cover comprising a top of the first and second flow paths; and

an inner nozzle layer comprising a base of the first and second flow paths, the inner nozzle layer mating with the inner nozzle cover; wherein

the wall extends outwardly from the inner nozzle cover; and

the first and second groups of apertures are formed in the inner nozzle layer.

7. The water supply channel of claim 3, further comprising a valve operative to direct water flow to one of the first and second flow paths.

8. The water supply channel of claim 7, further comprising a unitary inner nozzle insert defining a top and a bottom for the first and second flow paths; wherein

the first wall is formed integrally in the unitary inner nozzle insert.

9. The water supply channel of claim 3, further comprising a valve operative to regulate a flow speed of a liquid through the first and second flow paths.

10. A method for manufacturing a shower head assembly, comprising:

defining a first flow path;

defining a second flow path;

defining a first set of inner nozzles connected to the first flow path;

defining a second set of inner nozzles connected to the second flow path;

nesting the first and second sets of inner nozzles in a plurality of external nozzles;

enclosing the first and second flow paths in an outer housing;

at least partially enclosing the first set of inner nozzles, second set of inner nozzles, and set of external nozzles in the outer housing; and

affixing a connection structure to the outer housing, the connection structure operative to mate with a shower arm assembly.

11. The method of claim 10, wherein:

the operation of defining a first flow path comprises defining a laminar flow path; and

the operation of defining a second flow path comprises defining a turbulent flow path.

12. The method of claim 11, further comprising injection molding the plurality of external nozzles over the first and second sets of inner nozzles.

13. The method of claim 12, further comprising:

defining a water supply channel operably connected to the first and second flow paths; and

inserting a valve into the water supply channel, the valve blocking one of the first and second flow paths.

14. A nozzle assembly for use in a showerhead, comprising:

an inner nozzle;

an external nozzle at least partially surrounding the inner nozzle;

an inner nozzle orifice defined at a first end of the inner nozzle, the inner nozzle orifice comprising a lateral inner nozzle orifice cross-section;

an outer nozzle orifice defined at a first end of the outer nozzle, the outer nozzle orifice comprising a lateral outer nozzle orifice cross-section; and

a nozzle reservoir defined at a second end of the inner nozzle, the first and second ends of the inner nozzle opposite one another; wherein

the inner nozzle orifice and outer nozzle orifice substantially aligned along a longitudinal axis of the inner nozzle; and

a surface area of the inner nozzle orifice cross-section is smaller than a surface area of the outer nozzle orifice cross-section.

15. The nozzle assembly of claim 14, wherein:

the inner nozzle is rigid; and

the outer nozzle is flexible.

16. The nozzle assembly of claim 15, wherein the outer nozzle further defines a seal extending radially outwardly from a center of the external nozzle.

17. The nozzle assembly of claim 15, wherein the outer nozzle comprises an elastomeric material chosen from the group comprising santoprene and monoprene.

18. The nozzle assembly of claim 15, wherein the outer nozzle comprises an elastomeric material having a Shore A hardness of 40-50.

19. The nozzle assembly of claim 14, further comprising means for generating a fine mist from a liquid flowing through the inner nozzle.

20. The nozzle assembly of claim 14, wherein the first end of the inner nozzle is recessed from the first end of the second nozzle.